



THOMAS G. NEWMAN,
EDITOR.

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EDITORIAL BUZZINGS.

Though strange it may sound,
Yet we firmly insist,
Fault often is found
Where it doesn't exist.

The Rev. E. T. Abbott has been laid up with the epidemic-influenza — but we are glad to learn that he is now improving.

March has been cold and stormy all over the area of North America. The early bloom has had a "set-back," and winter clothing has been in demand. This is the first real winter weather we have had so far. Of course it cannot be of long duration, and will not materially affect the bees on that account.

"The Flowers that bloom in the spring," appeared down in Carmi, Ills., quite early this year. Two weeks ago we received a box of willow and other blossoms from our friend Ira Reeves, who lives there. The cold weather since March came in, however, has made a vast change in the early flowers.

In England, the bees were reported to be swarming in February. The London Times of Feb. 20 contained this item:

While a young man named Flint, son of the bailiff to Mr. E. Foster, of Woodbury, Tempsford, Bedfordshire, was engaged in the fields one day last week, he suddenly heard the humming of bees, and on looking around he was astonished to see a splendid swarm of bees which had alighted on a shrub. The youth's father is an amateur bee-farmer, and being himself quite an expert, he soon obtained a hive and secured the whole swarm, which is said to be a fine one. It was subsequently presented to a laboring man residing in the neighborhood.

Spraying Fruit Trees.—Mr. R. G. Robertson, Marshall, Mo., writes as follows:

In the spring of 1889 I had 6 colonies of bees; in the fall they had increased to 22, and had produced 600 pounds of comb honey. Every bee-keeper should take some bee-periodical. I am taking two, and I am contemplating taking another. Will the editor please give some information about spraying fruit trees with poison, giving time, etc., for spraying plum and apple trees?

The spraying should be done with weak Paris-green, and the time to do it is just after the blossoms fall, then it will kill the insect pest, and do no damage to either the bees or honey. Great care must be taken *not to spray the flowers when in bloom*—that is not only dangerous in poisoning the bees, but useless, for the curculio does not injure the blossoms, but the fruit.

But *why* use the poison at all? Mr. Peter Brickey gave some valuable information for all fruit-growers on this subject, on page 779 of the BEE JOURNAL for last year. He there gives a "simple, sure and easy remedy" to prevent the curculio from damaging fruit trees, without the trouble of spraying, or the use of poison, as follows:

Take a yarn string and saturate it well with spirits of turpentine, and tie it around the plum tree, about 2 or 3 feet high, or below the limbs, and as the curculio crawl up the tree, they are stopped by the yarn string, and turn back—they will not cross it. This has been tested to perfection, and never fails.

We advise the use of the above, instead of the poisoned spray.

Mr. B. W. Peck, of Richmond Centre, Ohio, on March 6, 1890, informed us of the sad death of his wife, in the following touching letter:

DEAR EDITOR:—I have sad news to report. On Oct. 4, 1888, I was happily married to Miss Edna Britton, of this place. I bought a piece of land about one mile from my father's place (my bees being at my father's), and built a nice home for us, during the summer of 1889. We moved into it on Nov. 11, 1889, and brought my bees here on Feb. 20, 1890. But on March 1, my new, bright and happy home was changed to a cold and dreary one, by the death of my dear wife, in her nineteenth year. No one knows my grief. I have been a bee-keeper ever since I was 15 years old—I am now 25; and have taken the AMERICAN BEE JOURNAL for seven or eight years.

B. W. PECK.

We extend to our bereaved brother our heartfelt sympathy in his great affliction, and bespeak for him general condolence among our readers. We know

'Tis sad to part with loved ones
For ever, here below;
But tearful grief oft blesses,
When we God's purpose know.

Mr. R. G. Hogue, of Loydsville, O., gave an address on "bee-ology" at the Farmers' Club held at Morristown, O., on Feb. 20, 1890. A nice programme was printed for the entertainment, and a copy of it is on our desk.

Mr. C. Theilmann, of Theilmanton, Minn., we regret very much to learn, had a narrow escape from death by accident on Feb. 18. We are glad to hear that he is improving, and hope that he may soon be all right again. He gives the following account of his "close call":

I have met with another and more severe accident than the one I had last fall, when my right collar-bone and two ribs were broken, caused by my horses running away and upsetting the buggy. This time, I was passing a railroad train on a narrow, downhill passage, and when the engineer saw that my horses were frightened, he opened the cylinder valves just for fun, when he came opposite my team. This scared the horses so badly, that they became unmanageable, broke the tongue, and upset the buggy, throwing me with great force on the rough, frozen ground, where I lay unconscious for about half an hour.

I received a number of big gashes on my head, and was badly injured in my lungs, diaphragm and liver; but the severest pains were in my right thigh, which was totally useless up to March 5th, when I moved a little on crutches. No bones seem to be broken, but the doctors say that it is badly bruised, and that I will come out all right. The wounds on my head are nearly healed up, and I am getting some better inside, so that I can sit in a chair, and pass the time in reading and writing. This was a very narrow escape. I was just fairly over the first accident and the *La Grippe*, when the last happened; but after such a blessed and successful summer as I had last year, I hardly have reason to complain of a bad winter.

C. THEILMANN.

Supply Dealers and Queen-Breeders should now be making their business announcements to the public for the coming season, if they desire to get a share of the trade of 1890. All such will be welcome to the advertising columns of the AMERICAN BEE JOURNAL, providing they are doing a legitimate and honorable business. Advertisements from dishonorable persons will not be admitted, knowingly.

We have received hundreds of unsolicited commendations of the BEE JOURNAL as an advertising medium, but have no room to give them here. We will just insert two, which are fair samples of all:

Having advertised in the AMERICAN BEE JOURNAL quite extensively for years, I would say (without solicitation) that it has sold more queens for me than any other three periodicals I have ever tried.—L. J. Diehl, Butler, Ind.

The BEE JOURNAL does its advertising wonderfully well. It brought to me responses from Canada to the Gulf of Mexico, and from the Alleghanies to the Rocky Mountains.—W. M. Rogers, Shelbyville, Ky.

Our New Location, in the heart of the business district of the city, at No. 246 East Madison Street, brings us in close communication with the several express companies, and we are conveniently near all the freight depots.

This location has made it possible for us to be more prompt than ever in filling orders, saving the long distance for hauling. Our friends will find it very convenient to call on us when in the city.

GLEAMS OF NEWS.

The Christian Woman, published at Philadelphia, Pa., is one of the foremost monthlies of the present time, in its peculiar line of work. Being well printed and ably edited, it is a pleasure, as well as a great profit, to read its entertaining and valuable contents. In its list of contributors are found the names of women who have become famous on account of their earnest words, and unselfish labors in various fields of activity. The February number contains this generous notice:

The AMERICAN BEE JOURNAL for 1890, sings, hums, gathers its stock of "honied," articles, and "stings" as industriously and perseveringly as in the heat of flowery summer. The twenty-fifth volume is completed, and the twenty-sixth is begun. Its character and usefulness are the guaranty for the future. It adheres closely and strictly to its specialty, and says all that can be said concerning the industry which it represents.

It is proved that those who keep bees, will find that bees keep them. - We have our two colonies safely stored away in a dry and warm cellar, and we hear a humming within. If this mild weather continues, with the thermometer at 60 degrees, and dandelions blossoming in the fields, we suppose they should be put out-of-doors. Still, there may be a change, and golden-rod may not start in time!

We have inquired for paraffine combs and glucose honey, so as to get that \$1,000 offered for a pound, but we cannot find any in Philadelphia. Perhaps if every farmer took the BEE JOURNAL, and knew of the offer, a specimen pound might be sent. Some new Edison may arise to invent the article; but the offerer may be dead before that prodigy arises. Moreover, the AMERICAN BEE JOURNAL will continue as long as bees work and flowers grow, and the wise will subscribe for it.

In the same issue, in an item referring to the ILLUSTRATED HOME JOURNAL, the *Christian Woman* utters the following very complimentary words:

The ILLUSTRATED HOME JOURNAL is a magazine which is prettily illustrated, well conducted, and is a worthy competitor for the approval and support of the best people.

Salve for Chapped Hands.—A salve that is good for all kinds of cuts, chapped lips and hands, is made as follows:

Take olive-oil, with just enough beeswax to thicken it, stirred in while it is heated on the stove a few moments. If liked, a few drops of rose-water may be added after the mixture is almost cold. The olive-oil should be from the druggists—not the common oil used for kitchen purposes.

The Iron Mountain Horticulturist for March is on our desk. It is the first issue of a new periodical published at Salt Lake City, Utah, and edited by John C. Swaner, the principal bee-keeper of that region. Of course it has a "Bee Department." It is well conducted, nicely printed, and deserves success.

Asters, Golden-Rod, Clematis.—

John H. Christie, Dyersburg, Tenn., says:

I send you one section of honey by express; I would like to know what it was gathered from—I suspect that it is linden, but there is no linden nearer than three miles from my apiary, though it is the last that is gathered in the spring harvest, and but few colonies have it.

I also send some leaves and flowers, and parts of a vine, that grow here (but not very plentifully), that bees work upon from light until dark; it grows about old fence-rows and thickets in the fields where it is protected from stock. It is a vine, and the topmost part generally lives all winter, but will sometimes die clear to the ground. Please name the flowers and vine.

I notice on page 58, that Mr. Ira Reeves says that he does not believe that there ever was an ounce of golden-rod honey gathered. Now I could not say positively that there was, for I never open the bees to see if they have honey in them; but I can say that I have seen them upon the golden-rod by the thousands, and have smelt them in time of the golden-rod bloom, by the time I would get within forty yards of them on any warm, still night; and, besides, the honey that they gather at such times, tastes like the plant smells, and the honey is as nice as any I ever saw—the comb and honey is nearer the color of gold. The aster that we have rarely grows more than 3 or 4 feet high, while the golden-rod often grows 10 feet high.

JOHN H. CHRISTIE.

We refer you to our comments on a letter from Mr. L. G. Purvis, on page 106, concerning honey from golden-rod.

The honey you sent comes from several flowers, and cannot be called linden honey, though there is some linden in it. We are not sufficiently familiar with Tennessee to name the sources.

One of the flowers sent is one of the numerous family of asters—the other is a species of clematis or Virgin's Bower, apparently *Clematis Virginiana*. It is in the fruiting stage.

Two-Fifths True.—R. H. Holmes, of Shoreham, Vt., on March 3, 1890, writes us as follows:

DEAR EDITOR:—In your issue of Feb. 22, on page 119, in the report of the Vermont Bee-Keepers' Convention, it is stated that "Mr. Holmes completed at this meeting his fifth year as President of the Association," etc. The quotation referred to is a mistake, which possibly grew out of the fact that I had been President for two years past, and Secretary for the three years previous to that. If you will note the correction in the next issue of the BEE JOURNAL, you will confer a favor upon me, and give "honor to whom it is due," namely, H. L. Leonard, of Brandon, Vt., and P. C. Abbey, of Essex, who so ably performed the duties of President while I was Secretary.

R. H. HOLMES.

The report was sent us by the Secretary, corrected from a reprint of the *Free Press*, and credited to it. We presume the reporter made the mistake, and that it was not noticed by the Secretary. We cheerfully make the correction.

Clubs of 5 for \$4.00 to any addresses. Ten for \$7.50 all are sent at one time.

Golden-Rod Honey is excellent for medicine, and the following from Mr. C. J. Robinson, shows that the herb is also valuable for its medicinal qualities. He says:

Different correspondents make different mention of golden-rod as a honey-producing plant. The discrepancy is wide, and of much importance—all important. Can the discrepancy be reconciled—correctly explained? Golden-rod is the common name—*Solidago odora* is the botanical name. It is the variety known as "sweet scented golden-rod" that secretes and furnishes honey. Probably there is some difference in the amount of nectar secreted by this variety of the genus *Solidago*, the difference being occasioned by difference of soil and climatic influences.

Solidago odora fluid extract and oil is among the pharmaceutical preparations of drug-stores, and used by physicians. B. Keith & Co., manufacturing chemists of New York city, give the medical properties of the plant thus: "Aromatic, stimulant, carminative, and diuretic. Employment—pain in the stomach and bowels, flatulence, suppression of urine, inflammation of kidneys and bladder, and for inhalation in diseases of the respiratory organs."

It will be seen from the above reliable medical authority, that the golden-rod is one of our best herbs for medicinal use. A decoction of golden-rod might convince those who decry the plant, that the despised weed is worthy of no small praise. Try it.

Good Market for Honey.—Mr. Geo. G. Scott, of Wadena, Iowa, on March 3, 1890, wrote us as follows: "Enclosed please find a favorable market report on honey. It is an evidence of reduced stocks, and a good market for the coming season on comb honey." The report was from one of our honey merchants, and reads thus:

CHICAGO, Ills., March 1, 1890.

The receipts of white clover honey are very light; demand good; and we find no difficulty in closing out our receipts of white clover, as we have orders awaiting arrival of goods. We would advise prompt shipments, so as to take advantage of the present firmness in our market. One-pound sections will readily sell for 12½@14 cents, according to size and appearance of crates.

New Catalogues and Price-Lists for 1890 are received from—

W. T. Falconer Manufacturing Company, Jamestown, N. Y.—24 pages—Apianer Supplies.

Geo. H. Kirkpatrick, Portland, Ind.—8 pages—Bee-Keepers' Supplies.

Marcus Holtz, Tiffin, O.—6 pages—Apianer Supplies.

Chas. Dadant & Son, Hamilton, Ills.—24 pages—Comb Foundation, and Supplies for the Apiary.

W. H. Norton, Skowhegan, Maine—20 pages—Bees and Apianer Supplies.

St. Joseph Apiary, St. Joseph, Mo.—8 pages—Bee-Keepers' Supplies.

Handling Bees.—This is the title of a nice pamphlet containing 14 pages and a cover, just issued by Chas. Dadant & Son. It is a chapter from their book, Langstroth Revised, and is an excellent thing for beginners. Price, 8 cents. For sale at this office.

QUERIES & REPLIES.

A Procedure when Colonies Swarm Naturally.

Written for the American Bee Journal

Query 692.—How would this plan work where colonies are allowed to swarm naturally? Hive the swarm as recommended by Mr. Hutchinson, namely, frames with starters in the brood-chamber, queen-excluding honey-board, and full combs in the super; take the parent colony and remove all combs except one having a queen-cell (if more cells than one, they can be cut out, leaving only one); fill the brood-chamber with frames having starters, put on the queen-excluding honey-board, and fill the super with combs—that is, the combs from the brood-chamber. In place of the queen-cell, a laying queen can be given the parent colony. Suppose the apiary to be run for extracted honey. By the above plan, I can get all my colonies to work in the supers, and have brood-combs drawn out at the same time. What is your opinion of the plan?—La. W. DEMAREE.

It looks plausible.—MRS. L. HARRISON.

I think that the plan will work very well.—J. P. H. BROWN.

I never tried this, but I think that it would work well.—A. J. COOK.

Having had no experience with this, I cannot express an opinion.—M. MAHIN.

It may work all right, but there be objections not thought of until put to the test.—C. C. MILLER.

Your plan will work, yet it is not the plan that I would adopt in my locality (Michigan).—H. D. CUTTING.

If I were at work for extracted honey, I would not bother in that way.—A. B. MASON.

It would probably work all right, if you like the combs built in that way.—R. L. TAYLOR.

I have never tried it. The space is too limited to expand an argument in support of, or against, a theory.—EUGENE SECOR.

I doubt the feasibility of the plan. You would get too much drone-comb. Try it, and report.—J. M. HAMBAUGH.

If you give the parent colony a laying queen, your plan will work; otherwise your bees will build drone-combs. If you work for extracted honey, you need have but very few swarms.—DADANT & SON.

It is too much "fussing." I do not favor extracting honey from a brood-comb, or from comb that has ever been used as brood-comb.—J. M. SHUCK.

I may be thick-headed, but I do not understand the question. Colonies will produce more extracted honey when they do not swarm, and swarming is unnecessary when working for extracted honey.—G. M. DOOLITTLE.

I have done with hiving swarms on starters only—entirely too much drone-comb is the result. There are some objections to putting starters only in the parent colony. The last plan may work all right for extracted honey.—C. H. DIBBERN.

Your plan ought to succeed and give the best of satisfaction in results. I believe in getting bees to work under the swarming impulse, as far as possible, and this is one of the plans to do it. With right management, a colony that swarms will store more surplus than one that does not—provided the swarming is not too late in a honey-flow.—G. L. TINKER.

The plan is all right, and I think that it will work well enough, but it is too complicated, I think, for many. I should not like it myself. If by the plan you can get "all

your colonies to work in supers," etc., you should stick to it.—J. E. POND.

Whether your plan or something similar will fail or succeed, depends upon climate, season, etc. Such detail plans as the one you speak of, belong to a series of a thousand others will all sorts of variations. Everything depends upon the bees, operator, location, season, and all that.—JAMES HEDDON.

Your plan will work, but the combs will be mostly drone size, unless you have a young laying queen, able to keep the newly-built comb filled with eggs as fast as built. Try this plan and report: When a colony casts a swarm, have a super or hive-body prepared with five frames filled with foundation (or with starters), the rest of the space filled out with division-boards. Put on a queen-excluder, and place the parent brood-chamber on it, with its surplus cases as they were before the swarm issued. Hive the swarm below, and when the brood is all hatched out, extract the honey from the upper combs, and fill out the brood-nest below, and use the rest where needed.—G. W. DEMAREE.

The Double-Walled vs. Single-Walled Hives.

Written for the American Bee Journal

Query 693.—1. Do you use double-walled or single-walled hives—that is, walls without packing? 2. When no packing is used, how much dead-air space would you give, and what thickness of lumber would you use for each wall? 3. Would you make the bottom-board double-walled, the same as the sides and ends of the hive? 4. When kept on the summer stands the year through, has the double-walled hive any points of superiority over the single-walled hive? If so, what are they? 5. What points of superiority has the single-walled hive over the double-walled hive? 6. Are the points of superiority of the double-walled hive sufficient to pay for the extra expense of construction over the single-walled hive?—Ohio.

1. No. 5. Cheapness and convenience.—R. L. TAYLOR.

Only single-walled hives are used in this latitude (Georgia).—J. P. H. BROWN.

1. Single-walled hives. I have no experience with double-walled hives.—J. M. HAMBAUGH.

1. Single-walled hives. 2, 3 and 4. I never had a double-walled hive. Perhaps I ought to try one. 5. They are lighter to move.—C. C. MILLER.

1. Single-walled, only. 2. I do not know. 3. No. 4. Yes. 5. It is lighter and more easily handled. 6. No.—C. H. DIBBERN.

1. I use both. 2. One inch dead-air space, and $\frac{1}{8}$ -inch lumber. 3. Yes. 4. With me, the bees winter better, and do better in summer. 5. Yes.—M. MAHIN.

1. Single-walled. I winter the bees in the cellar, and pack with chaff in the spring. 3. Yes. 4. Some say yes, and some no. My experience has been too limited to be of value.—A. B. MASON.

1. I use both, but prefer the single-walled hive. 2. About 3 inches; $\frac{1}{8}$ or $\frac{1}{4}$ lumber, as preferred. 3. It is better so. 4. Certainly; they protect from cold and heat. 5. Cheaper, lighter, and, if well packed, as good in the spring. 6. I think not.—A. J. COOK.

1. Mostly double-walled. 2. I use a 5-inch space filled with fine straw. 3. I do not. 4. Yes. The bees are protected from extreme heat and cold. 5. Not any, except portability. 6. I think so, or I should not use them.—G. M. DOOLITTLE.

1. Both. We have some hives with a $\frac{1}{8}$ -inch inner wall, $\frac{1}{8}$ -inch dead-air space, and

$\frac{1}{8}$ -inch outer wall, and like them well. 3. No; and yet it might pay. 4. Yes; that thin outer wall acts as a protection to the hive against cold winds and very cold weather. 5. Cheapness. Yes, we think so.—DADANT & SON.

I would not use double-walled hives. They have some great advantages, but the balance of excellence is with the single-walled, light-weight hives. My hives, complete, with two supers and hive-stand, weigh from 30 to 35 pounds each.—J. M. SHUCK.

1. Both. 2. One and one-half to 2 inches; $\frac{1}{8}$ inch outside, and $\frac{1}{8}$ inch inside. 3. No. 4. I have found that it has in my locality. 5. It is far cheaper to construct. 6. Not in my locality; with proper and the same care in packing I see no difference.—J. E. POND.

It will take at least one column to properly answer this. 1. Single-walled in the summer, $\frac{1}{8}$ inch thick. 2. Four inches, divided ten times by thin partitions of wood or paper; $\frac{1}{8}$ inch for the hive, $\frac{1}{8}$ inch for the outside of the packing-box. 3. Single, of $\frac{1}{8}$ -inch board. 4. Only as protection from cold in winter and spring. 5. Not space enough to give detail answer. 6. I do not know.—H. D. CUTTING.

1. Single-walled. 2. Seven-eighths-inch thick; we winter in the cellar one-half of our bees, the balance on the summer stands, with chaff cushions over the frames. 3. I would never make a double-walled hive. 4. They are warmer in winter, but the same ends can be obtained more cheaply in other ways. 5. It takes less material, is more cheaply made, and more easily moved. 6. No.—MRS. L. HARRISON.

1. My hive may be used as a double or single walled hive, but I prefer to winter bees in the double-walled hive. 2. If I did not use packing, I would want the hive made of heavy lumber; but as I use packing, the outside of my winter case is made of thin stuff— $\frac{1}{8}$ -inch thick. 3. No. 4. They are better to winter bees in. 5. Very few. 6. Yes, and many times over, in my opinion.—G. L. TINKER.

I have in my possession over 50 double-walled hives, with one inch dead air space, and though costly hives, they would go cheap now, if I could dispose of them. To make the story as short as possible, such hives do not give satisfaction in my locality (Kentucky). No doubt they would serve a better purpose further north, but somehow or other, my bees build up more rapidly in single-walled hives, that are easily warmed by the sun in the early spring, as well as at intervals in the winter time.—G. W. DEMAREE.

A single-walled hive, every time. The bottoms and covers are $\frac{1}{8}$ -inch thick, sides $\frac{1}{8}$ -inch thick, and ends $\frac{1}{8}$ -inch thick. The double-walled hive is inferior to the single-walled, if the latter be placed in another box, and packed during the spring, and in the winter if wintered out-doors. The single-walled hive is the only one fit to use upon the readily-movable hive plan—the only plan which can produce honey at present prices and compete. Double-walled hives are too great a hindrance to successful modern apiculture, to be worthy of taking even as a gift. Their day is done.—JAMES HEDDON.

The Report of the proceedings of the 20th annual session of the International American Bee-Association contains, besides the interesting report, the new songs and music then used, and engravings of the present officers as well as the retiring ones. In all, it contains 36 pages. It is for sale at this office. The price is 25 cts., postpaid.

CORRESPONDENCE.

BEES IN SPRING.

How to Manage Them After Wintering.

Written for the American Bee Journal

BY ALLEN LATHAM.

On page 648 of the BEE JOURNAL for 1889, I gave my method of wintering bees, and said that I should have something further to say in regard to spring management. By the time this reaches the readers, it will be time to look after the bees.

Probably most of the bees throughout the country have wintered well; those which were put up according to the method given in my former article, I am sure, are doing well. My 37 colonies are in first-class condition. All who have packed their bees should, about the middle of March, open the hives, and make a thorough examination. If there is plenty of honey, the frames should be taken out, and the cappings shaved off of about 5 pounds of honey. In my case, as I have but four frames in the hive in winter, I spread the brood.

If there is not much honey, you should proceed as follows: Remove the frames which have no brood—say two frames; lay one in a tub, and fill it with thin syrup by pouring the syrup on the comb; when one side is full, turn the frame over. There is no danger that it will run out of the first side, while the second side is being filled. Put about two frames of this into the middle of the brood-nest, and you will be agreeably surprised, on examining them about three weeks later. This is by far the best method of spring feeding. It not only furnished the required food, but stimulates the bees to rearing brood; moreover, no bees are lost by flying out in the cold.

About the first week in April, the bees are to be overhauled again. Cushions must be removed, and more combs added; the brood-nest should be divided, and about two combs, with the cappings sliced off, placed between. It is not well to leave one comb of brood by itself, or it may be deserted; if two or more are put together, there is almost no danger of that. If the hive is populous, it will bear considerable brood spreading; if not populous, care and judgment should be exercised.

At this time of opening—say April 5—it should be seen to, that the colony has plenty of honey to last until fruit-bloom. If the apiarist is near his bees, much will be accomplished through

daily care; enlarging or diminishing the entrance, and on warm days taking off the top cushions to let the sun warm up the hives are useful for promoting brood-rearing. I am 35 miles from my bees, and do not see them oftener than once in three weeks. Nobody else touches them, and so I have to do the best that I can when I do get to them.

If the bees have been properly tended, and have been supplied with both honey and some substitute for pollen, if necessary, by the first of May they are overflowing their hives, and are ready to carry in the apple-blossom honey when it comes.

The foregoing directions for spring management of bees are for hives packed on the summer stands. I have never wintered my bees in any other way, and hence I do not know anything about other methods. I do know this, though, that weak or strong colonies can, by reason of careful packing, be wintered safely, and be quickly bred up into booming colonies by the first of May. The packing allows a small colony to cover a large amount of brood.

One spring I had one colony reduced to about one pint of bees; it contained my best Italian queen. The reason of their being so weak, was through faulty fall management, and not from the effects of wintering. I gave this small colony daily attention, and kept the entrance down to a size to admit one bee at a time. The colony received no help from other colonies, and no artificial heat; but by May 15, it was a roaring hive, with nine frames of brood. At one time there were four frames of sealed brood, and only one or two bees to every twenty-five cells. I suppose that the growing brood must have helped keep up the heat of the hive. Such a thing would be impossible with an unprotected hive, and scarcely practicable in the cellar.

The time to remove the packing is when apple-trees are in bloom.

Cambridge, Mass.

ASSIMILATION.

Nectar and So-Called Honey-Dew Not Digested by Bees.

Written for the American Bee Journal

BY DR. J. W. M'KINNEY.

It is wonderful, but nevertheless true, that in matters of politics, religion and science, an *absurdity* however great, will find believers and advocates. Therefore we are not so much surprised to find some believing and advocating the "digested nectar" theory of Prof. Cook. He said before

the International Convention at Brantford, Ont., "that honey is, in *reality*, digested nectar;" "that it is in a condition to be assimilated without undergoing any change in the true stomach." In this he was supported by Mr. S. Corneil.

This assertion (for it is but an assertion) is made, too, in defiance of the admitted fact that the nectar as gathered by the bee, *does not enter the digestive canal at all*, but is received into a sac, or "honey-bag," situated above and behind the digestive apparatus; and, while not so remote, it is as distinct from the digestive organs as is the pollen-baskets on the bee's hind-legs.

If the nectar is digested, as Prof. Cook says, "while in transit from the field to the hive," it is done *outside* of the digestive organs, and in defiance of all physiological laws.

It will not be contended, I presume, by any one, but what all fluid substances gathered by the bee, and carried home to the hive, are subjected to like processes, and are all carried in this special receptacle for carrying fluids—the honey-bag. Then, if "nectar is digested, and ready for assimilation," all other fluid substances so carried should be ready for assimilation.

Two years ago last September, as no doubt, many readers of the BEE JOURNAL remember, the bees in this part of the country gathered very abundantly from the leaves of forest trees, a very dark, sweetish substance, called "honey-dew," but in fact it was the excreta of the aphis. Many colonies of bees had little else to winter on. Those that could not take frequent flights during the winter soon became diseased, and most of them died; leaving the front of the hive and tops of the frames daubed with a dark, tenacious excreta. If the bees, when gathering this substance, had "digested" it before depositing it in the combs, and had it ready for "assimilation," can any one suppose for a moment that this mortality among the bees would have resulted? Instead of this stuff having been digested before or after being deposited in the combs, a great portion of it was found to be actually *indigestible*, being a ligneous, unnutritious substance, to be got rid of as excrement, and to be frequently voided as such.

Prof. Cook has well described the glands situated in the head of the honey-bee, and, in my judgment, only misconstrues the function of some of these complex glands. That these head-glands furnish largely the fluid secretions concerned in digesting the crude substances (honey and pollen) there is no doubt; that these secretions are poured into the digestive canal

when the bee takes the crude honey and pollen into the stomach, is equally true; that the substances thus entering the stomach undergoes the process of digestion, and is converted into a white, opaque substance, called "chyme," is certainly true; and when brood-rearing is going on, an abundance of this chyme is regurgitated by the nurse-bees into each cell where there is a larva, as food to develop their growth.

Now, right here let me ask, is there an apiarist in all this broad land, that ever saw *crude* honey, or honey and pollen taken from the cells where it had been stored, and fed to the larvae, in the crude state? Yet we are told that "honey is 'digested nectar,' ready for assimilation!"

Let me now quote from page 831 of the AMERICAN BEE JOURNAL for 1889: "As is well known, this nectar is neutral, and contains cane-sugar." "Honey is acid, and contains reducible sugar." From this it follows that bees *do make* honey from cane-sugar! In fact, Prof. Cook has so stated elsewhere.

In relation to this matter, let me state in brief the following experiments, viz:

Bees fed on cane-sugar syrup some distance from the hive, were allowed to fill themselves, and when preparing to return to the hive, they were captured under a glass vessel, and retained for ten minutes (a much longer time than it would take them to fly a mile), and then killed; by carefully dissecting out and opening the honey-bag, dropping its contents on litmus paper, we obtained a negative result as to the presence of an acid. The same test was applied to the contents of the honey-bag of other bees immediately after filling themselves with syrup, with like negative results.

After syrup had been stored in the hive for several days, and then removed and dropped on litmus paper, the presence of an acid was plainly manifest. The same test was then applied to syrup left standing in an open vessel for the same length of time that the syrup had been stored in the hive, with the same resulting evidence of the presence of an acid.

From this we conclude that the negative results of the presence of an acid obtained in the first two experiments, was in consequence of the syrup not having been exposed a sufficient length of time to the action of the great acidifying element—oxygen.

The acidifying of the syrup deposited in the combs was no more due to a secretion of the bee-glands, than was the presence of the acid in the syrup left standing in the open vessel. In

both instances it was due to the action of the oxygen in the atmosphere.

It is a recognized fact by chemists, that *all substances containing saccharine matter in a fluid form, contain an acid in an isomeric form, and needs but the action of the oxygen of a warm atmosphere for a few days at most, to make it manifest.* This is the plain, rational explanation of how the acid is developed in honey. Thus we see that it is not necessary to look into the bee, or the bee-glands, to account for the presence of the acid found in honey.

Furthermore, if this acid is a secretion of the bees, and to the sweets gathered, and by the bees added during a supposed digesting and refining process, we would expect all such sweets to be more uniform in taste, color, consistence, and effect as an aliment, than is found to exist. Instead of uniformity in these respects, we find that if the bees gather sweets from an impure source, that impurity still exists so long as these sweets remain in the combs. We are obliged to look to the source from whence the sweet is obtained, if we expect good honey. The bees cannot make it!

Some look upon this whole thing as unimportant, and as a matter of indifference to be soon forgotten. I do not think that an error, or ignorance in anything pertaining to the production of honey, should be treated as a matter of indifference. Be assured, the more fine nectar-bearing bloom that is grown, the more and better will be the production of honey; and we should fully recognize the fact that the source of the best honey is from the nectaries of the best nectar-bearing bloom; that honey will vary in quality by reason of the source from whence it is gathered, and that it is wholly a vegetable production, and no part an animal secretion.

Camargo, Ills.

INCREASE.

How to Manage and Control Increase.

*Written for the American Bee Journal
BY H. SAWYER.*

I feel sure that by boring a 2-inch hole in a hive that is full of bees, and put a piece of queen-excluding metal on the inside of the hive, and then put an empty hive close beside it, with a corresponding hole also covered with queen-excluding metal, the bees will go through, and be in the empty hive, and when they do, put in a comb of brood and one or more empty combs, or frames filled with foundation, next

to it; and in a day or two after, put in a queen-cell, well started or capped, or nearly ready to hatch. In a few days there will be another swarm of bees, and where a person is anxious for increase, by using small hives, say of about 3 frames, there can be a great number of colonies made from one in a short time.

It probably would be well to transfer them into full-sized hives, in September, to grow up into full-sized colonies for the next season's regular work; and by putting small supers on top of these small hives, perhaps they would store a considerable surplus of honey besides.

In hives with telescope caps, bore the holes just the same, and put a block with a corresponding hole in; to fill the space between the two hives with queen-excluding metal on both sides of the block, would be just the thing. Bore the holes all of one size, and have barrel bungs turned to stop the holes, when the hives are separated.

It appears to me that here is a plan to solve a great deal of trouble, in watching bees at the swarming season; and, it appears to me, that very likely there may be secured by this means some of those great yields of honey that we sometimes hear of, where bees are put into a room in a house.

The question is, how to use this plan where a person has all the bees they want, and cannot sell the increase that will naturally arise. From the foregoing course of procedure, I see no way but by uniting (probably the best time would be in the spring), to reduce the number, and then each colony would start in storing, to do rapid work both in surplus honey and filling up the empty hives.

Will some practical bee-keeper give his views on this departure from the usual methods of managing increase?

Burlington, Iowa.

BEE-ITEMS.

The Weather, Honey Almanacs, Bee-Escapes, Basswood, etc.

*Written for the American Bee Journal
BY O. S. COMPTON.*

To-day we are having the worst snow-storm of the season, but my bees, packed in 3 to 6 inches of chaff on the summer stands, are coming through the winter in splendid condition. They have had weekly flights all winter, and brood-rearing is in progress in nearly every hive.

The past season (as well as the two previous ones) was a very poor one for honey or increase of bees, in this locality, and the average per colony,

spring count, was less than 40 pounds of honey, and most of it was buckwheat and golden-rod.

THE ALMANAC A GREAT AID.

The Honey Almanacs are the "boss" to build up a home market. I ordered 100 to test the matter, and they just rolled the orders in, and almost before I knew it, the crop was sold at good figures, viz: 8 cents for buckwheat, and 10 cents a pound for the basswood honey, and purchasers furnished the receptacles. These prices are for extracted honey, as I produce that, almost exclusively.

I also sent a few hundred pounds of the buckwheat honey to Detroit, to a commission house, and it netted me 8½ cents per pound; but bee-keepers must remember that to get such prices, the honey must be of the very best quality, in suitable packages for the trade—and it does not pay bee-keepers to put anything else upon the market.

THE REESE BEE-ESCAPE.

I have used this bee-escape for the past two seasons, and I should think seriously of quitting the business if I should be compelled to do without it, or some similar contrivance. It is a great help in taking off comb honey, and its value in the production of extracted honey is hard to estimate.

DIVISIBLE BROOD-CHAMBER HIVES.

I have had in use since 1886, a few of the divisible brood-chamber hives, and words fail to express my delight in the use of them. They are certainly the best hives for comb honey, and my experience teaches me that they cannot be excelled for the production of extracted honey. I shall use the new hive exclusively in the near future. I have never before praised up the advantages of this hive, because I wanted to be sure, by several years' experience, that my convictions were not misleading me.

DESTROYING BASSWOOD TREES.

I, too, protest against the wholesale destruction of our basswood, and I would advise bee-keepers who produce comb honey, to use the white poplar 4-piece section, as being the best, whitest and neatest section upon the market. This winter nearly 500,000 feet of basswood logs have been sold to our sawmill men, and all taken from my field, so I shall have cause for alarm. I am doing what I can to counteract the loss, by planting three and four year old basswood trees, along our streets and waste-places.

BEE-EXHIBIT AT THE WORLD'S FAIR.

Now that we are going to have the World's Fair at Chicago, in 1892, I want every progressive bee-keeper in

the land to make an effort to help the show along, and we want to make the grandest display of honey, bees, hives and fixtures that the world ever saw. We can do it, and with Dr. Mason to lead us, there should be nothing left unturned that would add to the grand display. Let us hear from Dr. Mason—what course he intends to pursue, and then let us all take a lift at the wheel, and start it rolling.

Glenwood, Mich., March 4, 1890.

WIDE FRAMES

Defended for their Advantages Over T Supers, etc.

*Written for the American Bee Journal
J. V. CALDWELL.*

For the last year or more I have been greatly interested in the discussions *pro* and *con* as to the merits of the T super, as compared with the old, reliable wide frames; and, indeed, it seems that unless some one becomes a champion for our good wide-frame super, too many of our good brethren will needlessly destroy the frames that have done such good service, and adopt some new-fangled super, which will, in the end, give them no more honey, and will surely—it seems to me—give more trouble in manipulation than our old friend—the wide frame.

Let us note briefly the claims of the T super:

First, one special feature is that any width of the 4½x4½ sections can be used; and, second, that all the sections can be removed at once. I will not give any more, but will only say that using all widths of sections is of no advantage, in my opinion. I want just one size of sections, and one size of hives in my apiary.

The next claim, that the sections can all be taken out at once, is an objection to its use, as there often are times when we want only to remove part of the sections—especially when only filled in the centre of the surplus case—and then we must handle sections singly; whereas, with the wide frame, either four or eight pounds can be taken out, and an empty frame inserted.

Again, the T supers contain too many loose pieces, as by the simplest way they are made, the separators are put in loosely; while the wide frame is compact, and has no loose pieces whatever. The wide frame also protects the sections on all sides from the bees, and to accomplish the same result with the supers, a lot of pieces must be laid on the top and the bottom of the sections.

Now has the wide frame any faults? It has but one that I know of, and that is but a slight one, viz: the sections do not come out so easily; but I think that Dr. Miller, who has used both systems, does not count this an objection.

If any of the fraternity think differently, just let us hear from them.

THE DIBBERN BEE-ESCAPE.

Having just made a close examination of Mr. Dibbern's improved bee-escape, I must say that I am greatly pleased with it, and I think that it is one of the most useful inventions ever given to the bee-keeping world. I have not as yet given it a trial, but Mr. D. tested it thoroughly the past season.

I am personally acquainted with Mr. Dibbern, and know him to be a skillful bee-keeper, producing from five to ten pounds of comb honey each season. He is also a man of the strictest integrity in every respect.

Cambridge, Ills.

BEES IN WINTER.

The Temperature of Winter Repositories for Bees.

*Written for the American Rural Home
BY L. F. ABBOTT.*

When Mr. Langstroth prepared his celebrated work on the honey-bee, and which still remains a standard authority of its class, he wrote concerning wintering: "What way precisely is the best, can only be determined by careful and long continued experiments, and yet, these ought not to be conducted so as to hazard too much in one venture."

At present we think there is not so much diversity of opinion in regard to wintering bees, among practical bee-keepers, as when Langstroth wrote his book. What seems to be most necessary in the conditions for successful wintering, is protection from atmospheric changes. This may be attained by chaff hives, or by wintering in the cellar, or other underground apartment. These conditions also include colonies that are healthy, strong in numbers, with an abundant store of honey; upward ventilation to the hives, easy communication from comb to comb, and if out-of-doors, the hive entrances sheltered from piercing winds and the direct rays of the sun.

For myself, I have had less loss, on the whole, from cellar-wintering than wintering bees out-of-doors. This must include colonies of all sizes and conditions. Wintered in a temperature so far above freezing as to afford the best conditions—38° to 40°—there is less

loss of bees in individual numbers; less consumption of stores, and in some instances it has been found that brood-rearing has been carried on in the cellar where colonies possessed young and vigorous queens so that such colonies come out as strong in numbers, if not actually stronger than when put into the cellar in the early winter.

This state of things cannot always be depended upon, however, but experience seems to have demonstrated that we may reasonably hope to get small and rather weak colonies, that have an ample supply of good quality of stores in their hives, through to April in the cellar, when, if wintered out-of-doors, they would be quite sure to die.

But given strong, healthy colonies with plenty of stores, taking into account the vicissitudes of getting through the unfavorable weather of April, and often the first ten days of May, which tell so unfavorably upon the cellar-wintered colonies, that it is a question in my mind whether the risk is greater to winter bees out-of-doors than in a good cellar.

The experience of the past eight years has fully satisfied me that a cold cellar, one in which the mercury drops to freezing and below, unless kept up by artificial means, is about the worst place in which to winter bees that could well be selected.

Another thing is pretty well settled, and that is, that in our Maine climate, where the mercury frequently drops from 15° to 25° below zero, and continues for days together at zero and below, that some more protection to our hives is needed to winter bees successfully out-of-doors, than the ordinary single-walled hive affords. Perhaps it may not make so much difference whether the hives are so constructed as to afford a dead-air space, two thicknesses of walls, chaff or leaf-lined, or encased with some improvised outer covering; the main thing to be attained is some protection from the intense cold and the sudden changes of the atmosphere.

In my experience I have settled down to this practice: Strong colonies are placed in chaff hives, or single-walled hives, given protection by packing in leaves with an outer board covering, and left on their summer stands. Weaker colonies—those which may be regarded as any ways doubtful—are placed in the house-cellars and kept there as far into April as they can be kept quiet.

FAVORABLE WINTER FOR BEES.

The present winter so far (Jan. 15) may be considered a favorable one for bees in this section of the country. The

frequent mild days in November and December gave the bees, where the hives were on the summer stands, ample occasion to fly at intervals of two or three weeks till the middle of December.

On the 16th of November, bees were observed entering the hive with pellets of pollen upon the legs, the like of which I never saw before in an experience in caring for bees of over forty years. It is somewhat singular that flowers should be found that yield pollen so late in the season, but it was evident from the appearance of the substance that it was gathered from charlock, which has of late years found its way to Maine fields from the West, in oats and grass seed. This plant blossoms until snow flies.

Lewiston, Maine.

Yesterday is Past.

Yesterday is dead
And lies at rest.
No breathing stirs
The white-robed breast;
The groans and sobbing
Are hushed at last,
Thanks be to heaven!
Such pains are past.

Seek not to rouse
Its unquiet ghost;
Conjure to phantom
Of what is lost;
Come away softly
And make no moan,
Leaving thy perished hope
Dead and alone.—*Scribner's.*

BEE-LEARNING.

Fastening the Bottom-Boards— Keeping Tally of Colonies.

Written for the American Bee Journal
BY HENRY STEWART.

It is to the investigations and teachings of others that we are all indebted for the most of what little we know; the wisest and most learned in the aparian sphere have only become such by gathering up the littles which have been first studied out by the myriads, and refuting, improving and weaving these into a net-work which the possessor chooses to boast of as the knowledge of his experience, but which in reality is in the main but a rehash of the experience of others. Each of us should be only too glad to contribute our mites to the great store-house of knowledge when opportunity presents itself.

In my last year's experience with bees, I have learned much from the pens of others, as well as a few things from my own investigations, and a couple of these I will describe.

FASTENING MOVABLE BOTTOM-BOARDS.

About a year ago I purchased a few colonies of bees in hives with loose bottom-boards, which I desired to move five miles by wagon, and how to fasten those pesky bottom-boards without driving the hives full of nails, was the question which I soon solved, by the use of the common butter-tub staple, which I found to be just the thing in the right place. Not only did I find that staples were useful in this instance, but I fastened on all the bottom-boards of my new hives with them, using one at each corner, thus making a bottom-board which is perfectly solid, and holds the hive true and firm, yet one that can be easily and quickly removed by the use of a chisel in prying out the staples.

TALLY FOR SURPLUS-HONEY CHAMBER.

The other discovery is a "tally" for indicating the condition of the surplus chambers during the working season. This is a very simple device, but it is practical, and I prize it highly. It is absolutely necessary to become better acquainted with the condition of a large yard full of bees, than the memory of the average bee-keeper will permit of. I have tried several different ways of keeping these records, but I found them very unsatisfactory until I found this one, which is simply as follows:

I cut a small circle with a lead-pencil on the side or end of the hive. This is the tally-board, and for tallies I use, little, sharp brads, and small bits of differently-colored paper. I use the paper to indicate the date when the hive was last examined, and the position of the brad in the circle.

To note the condition of the surplus-chamber the first week in the month, I use simply a brad without paper; the second week I use a brad on which is a small bit of red paper; the third week the brad with white paper; and the fourth week, blue paper.

A brad placed on the circle indicates that the observation was taken in the middle of the week; on the outside of the circle the first, and on the inside of the circle, the last of the week.

A brad on top of the circle indicates an empty chamber; at the bottom, half full; and half way between these, either $\frac{1}{4}$ or $\frac{3}{4}$ full. So in walking through my apiary the third week in the month, I observe a hive with a red paper at the $\frac{1}{4}$ point; I know that chamber was $\frac{1}{4}$ full, and, if ready, I give them a new case; I change the paper to a white one, and place it on top of the circle.

With this method, one has only to glance at a hive to know if it is in need of his inquisitive eye, or not.

Prophetstown, Ills.

BEE-HIVES.

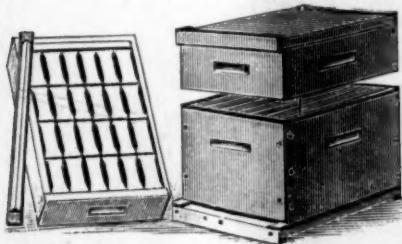
Their Construction for Simplicity, Utility and Cheapness.

*Written for the American Bee Journal
BY SMITH & SMITH.*

It was said by a correspondent in the AMERICAN BEE JOURNAL, a short time ago, that the "coming hive" was one that would take a standard Langstroth frame in size, with a wide, stiff top-bar; and a hive that would give the best results, and cost the least money—or words to that effect. We agree with this correspondent, and as there has been much said both *pro* and *con* about wide top-bars, we wish to give our views of the subject.

After using a top-bar 1 7-16 inches wide, for 19 years, we know that, if properly made, they will almost invariably prevent brace-combs.

We will describe the hive and top-bars, as we think they should be made,



and to aid in making it plain, we here present an illustration of the hive and super.

We call this "The Poor Man's Langstroth Hive" on account of its cheapness, which is obtained by its simple construction, and doing away with everything not absolutely necessary.

The engraving represents a 1½-story, 8-frame, Langstroth hive for comb honey; the top raised above the hive being a super, the same as the one at the left, and has a plain board top or cover. The size of the brood-chamber is 20½ x 13½ x 9½ inches, outside measure, with scant ½-inch bee-space above the brood-frames.

The super is the same size as the brood-chamber, but is only 4½ inches deep, and it also has a bee-space above the sections. The edges of the hive and super are all square, and rest squarely upon each other, to do away with all dummies, false ends, section-holders, etc. We use a combined wood-and-tin T, and as the supers are rabbeted at the top, the same as the hive, and the T being ½ inch wide, there is good finger room to handle the sections. A T is also used between the rows of sections at the top, to prevent the sections from racking or getting out of shape. When the sections are filled, they are perfectly square.

The frame is the standard Langstroth, except the top-bar is 1 7-16 inches wide, and ½ of an inch thick down to the square. By looking closely at the end-bar, standing at the left of the super, it will be seen that it is V-shaped, but the V is not as wide as the bar. Right here is one of the advantages of it—the bar proper being 1 7-16 inches wide, and the V only 9-16 of an inch wide, we have a flat square on either side of the V, of ¼ inch. When the comb is built out, it is not as wide as the top-bar, and the bees are not inclined to draw it out and over the square edge of the bar, as they do where the V is the full width of the bar, giving a slanting edge to run over. Do all see the point? With the use of this top-bar, there will be no brace-combs, hence there is no need of a honey-board.

As we stated at the beginning, we have used this width of top-bar for 19 years, and we have had no use for a honey-board in our apiary, nor have we been troubled with brace-combs, and in all of these hives use by others, not one word of complaint have we heard about brace-combs; and a honey-board has never been used on one of the hives, to our knowledge.

The points of cheapness are these: There are no honey-boards, no extra supers, crates and section-holders; and no outside covers, or bands for tiering up, etc. There is nothing to get but the brood-chamber, an 8-frame super, and the sections, when you have a complete hive, and one that will give the best of results for either comb or extracted honey.

Two supers will make a brood-chamber, and can be used for extracting from, or one brood-chamber may be placed one on the other.

We do not wish to be understood that we think this is the "coming hive," but we do say that it is a very near relative to it, on account of its cheapness, simple construction, and good qualities.

HONEY.

Its Great Value as Food and Medicine.

*Written for the American Bee Journal
BY REV. STEPHEN ROESE.*

In early days, honey was of more value as food and medicine, than at present; during the Old Testament dispensation, honey is spoken of with great praise. Palestine—the land promised to the descendants of Abraham—was said to be the land where milk and honey floweth; David, the sweet singer, knew of no better illustration than to compare the precious-

ness of the word of Jehovah, to honey and the honey-comb; and as a proof that ancient Israel made use of honey as food, we read that Samson, Jonathan, and John the Baptist ate it, the latter subsisting wholly on locusts and wild honey.

With ancient Greece, honey as food and medicine was highly thought of, for they considered it as the food of their gods (Ambross), and even Zeus, who was trained and instructed by the honey-nymph, Melissa (according to their saying), understood the art of mixing honey-drinks, to put his father Chronos to sleep, before he would attempt to attack him; and the ancient Greeks claimed that honey originated in Heaven, and that it came from thence in the form of dew—that it was too precious to be produced by bees.

According to Diodas, of Sicily, honey constituted a staple article of food in Italy; they claimed, even, that it prolonged life, and prevented disease. Enormous quantities of honey were used in that country, and all sorts of fruits were by it preserved, and eatables and drinks sweetened.

Even the powerful ancient Teutons (Germans), who did not know how to make their eatables palatable (like the ancient Greeks and Romans) with honey, yet they understood, and knew how to value honey in the preparation of their national drinks (*Met*); and on all occasions, at their festivals, they drank freely, and felt themselves translated into *Wallalla* (the region of perfect bliss), and great quantities they must have prepared and always had on hand, for when, in the year 1015, at Meisen, the enemy had set fire to the city, and water being scarce in the city, they extinguished the flames with *Met*. According to Rheinish legends, the Schœffen (Justice of the Peace), had at every day of each court sessions, a pail of honey-wine placed in his office, so full that a fly sitting on the edge of the bucket, could drink out of it. But enough of this.

Honey during the past ages, constituted a staple article as food and medicine, and much more so than in our days, and what is the cause? The first cause is the immense manufacturing of cane-sugar, which has found its way to every family of the land; and although honey is on a level with it in price, yet the latter is crowded out.

Second, the immense manufacturing of vegetable sugar, from the sugar-beet, to the finest apple jelly, and their manufactured sweets combined, have nearly banished honey from every hearth; and as medicine, honey has been substituted by glycerine, etc.

The ancient Romans knew that honey was a great preventive of disease, and an important medicine for

epidemic diseases. Experience and medical skill is teaching the present population of this world, with still more force, that honey is forming the connecting link in Nature's remedies, which none other of Nature's products can do; and, consequently, a large field lies here open for honey, as the sole agent which no other product can fill.

The writer keenly asserts, that there is no better remedy in the kitchen, drug-store, or in any school, which can fill the place of honey in cases of croup, diphtheria, *La Grippe*, bronchial affection, asthma, consumption, and all diseases of the blood and bowels.

When during the pilgrimage to Mecca, a dreadful epidemic raged—where millions were in camp around the city of Mecca, thousands died daily, and physicians and their medicines proved of no avail, a messenger came hastily to the prophet, saying, "The faithful are dying by thousands daily." The prophet answered, "Tell the people to eat honey." The same messenger came again, saying, "The faithful are alive, and dead," in one minute; and the physicians declared the epidemic uncontrollable. "Tell the people," the prophet replied, "to eat honey;" and again the messenger returned, saying to the prophet, "The pilgrims are falling like snow-flakes." "Once for all," replied the prophet, angrily, "tell the people to eat honey, and honey alone, as medicine!"

The writer takes liberty here to say, that by his experience and observation, honey has proved in all cases what is claimed for it as a remedy for worms, a relief for constipation, an invigorator of the blood, and a regulator of the liver and bowels; and there is no better way to bring these truths before the public, and place honey on its former standard, height and level, than the broadcast scattering of the Honey Almanac.

The writer never made free use of honey until the Honey Almanac claimed it to give warmth to the system, for elderly people; and having suffered for over three years past from cold feet, poor circulation, and an irregular pulse, I made it a practice to use it freely, and on every morning, the first thing I would take a cup of hot water with a spoonful of honey diluted and taken as hot as could be drank, and the same at retiring at evening, and the result has been a marvelous cure. The temperature below zero this winter is not dreaded like it was when the writer called at the BEE JOURNAL office three winters ago, nearly frozen, sick, and poorly looking, expecting a home soon with those residing in graveyards; and a gain of flesh from 143 to 153 pounds tells the story of all.

Maiden Rock, Wis.

CONVENTION DIRECTORY.

1890. Time and place of meeting.

- Mar. 20.—Carolina, at Charlotte, N. C.
N. P. Lyles, Sec., Derita, N. C.
April 16, 17.—Missouri State, at Marshall, Mo.
J. W. House, Sec., Santa Fe, Mo.
May 1.—Southwestern Wisconsin, at Boscobel, Wis.
Benj E Rice, Sec., Boscobel, Wis.
May 3.—Susquehanna Co., at Hopbotom, Pa.
H. M. Seeley, Sec., Harford, Pa.
May 7, 8.—Texas State, at Greenville, Tex.
J. N. Hunter, Sec., Celeste, Tex.
May 19.—Northern Illinois, at Rockford, Ills.
D. A. Fuller, Sec., Cherry Valley, Ills.

SELECTIONS FROM OUR LETTER BOX

The Union and Its Work.

In regard to the officers elected for the ensuing year, I am very much pleased, as I think that the Bee-Keepers' Union has done a great work for the bee-keepers of the different States. I hope that the work may grow in interest until every bee-keeper in the United States will become a member. I think that it is a grand movement, and all should become more interested in the work.

I have 47 colonies of bees, packed in chaff hives, which seem to be wintering nicely so far. My crop of honey for 1889 was 1,950 pounds of extracted, and 150 pounds of comb honey, from 39 colonies, spring count.

MILo GEORGE.
Bowling Green, O., March 8, 1890.

Wintering Bees.

It seems to me that bees would winter better near the ground, but experience says such is not always the case. I have a colony of bees upstairs in the gable-end of a shop, about 14 feet from the ground, that came out as strong last spring as any colony in the apiary; the hive is on a shelf, with the entrance through to the outside; this same colony was the first to carry in flour about a week or ten days ago. As the weather was so nice, and the bees inclined to borrow honey without leave, I thought that artificial pollen would give the bees something to do. I have noticed that bees that winter in trees, come through sometimes in as good condition as in the best chaff hives. I remember one, in particular—a tree that I helped a neighbor cut down, and transferred the bees to Langstroth frames, two years ago the tenth of last May, or a little later. The bees were about 30 or 40 feet from the ground, and the combs were $7\frac{1}{2}$ feet long, well filled with honey, brood and pollen, and a great lot of bees.

C. A. BUNCH.
Nye, Ind., March 23, 1890.

The Management of Bees.

In the fall of 1886 I bought 1 colony of bees in a box-hive, and during the winter I read all the works on bees that I could get hold of, including a year's numbers of the AMERICAN BEE JOURNAL, which a subscriber was good enough to lend me. In May I transferred the bees to movable frames, made them into 4 colonies by division, and they stored 60 pounds of honey, besides getting enough to winter on. The next year I bought an Italian queen, and reared nine from her. On Oct. 1, I had 14 good colonies of bees, 200 pounds of honey in one-pound sections, besides a lot of brood-frames full of honey—perhaps 125 pounds.

In 1889 I increased my apiary to 21 colonies, took 800 pounds of honey in one-pound sections, and a lot in brood-frames. I practice tiering up; put separators on the first case of sections, and none in any of the others. I sometimes have a little trouble to get the bees to work in the sections, but I do not let up on them until they do. If a colony casts a swarm, take out four of the fullest frames of brood, put empty frames in their place, and put them back on one hive. I fill the brood-chamber with combs full of honey, and put a case of partly-drawn sections on, when they have them filled in two days. I winter the bees in the cellar, and have yet to lose my first colony.

GEO. T. GUNN.

Wall Lake, Iowa, March 8, 1890.

My Experience with Bees.

I began in the spring of 1887 with 6 colonies of pure Italian bees in old-fashioned hives. I bought new Langstroth hives, but did not get any swarms, and but 175 pounds of surplus honey. In the spring of 1888 I bought 6 more Italian colonies, at a sale, all in the old Langstroth hives; I increased them to 26, and in the spring of 1889 I put on the summer stands 20 strong colonies, which I increased to 38 that season, and sold over 1,200 pounds of honey in one and two pound sections, and we have honey on the table every day—the healthiest spread for children that I know of. I had been keeping bees in Iowa until late last fall, when I moved to this State, and will try the business here. I think that bees will do well here, for we have plenty of maple and basswood. I think that the AMERICAN BEE JOURNAL is a grand teacher to all bee-keepers. I was asked quite frequently what was the cause of all the bees dying, yet having plenty of honey. By inquiring, I found that the bees had the diarrhea, and the honey which the bees had eaten, had been frozen. I lost several colonies by the same cause last spring. In this State every one leaves the bees on the summer stands the year round; some packed with chaff, and some are not packed.

J. S. PYFER.

Salem, Nebr., March 3, 1890.

Hard to Keep Bees Quiet.

We put about 100 colonies into the cellar, and have had some trouble to keep them quiet. Some colonies have thrown out some brood. We like the BEE JOURNAL and the HOME JOURNAL very much, and their general circulation would do great good.

S. P. HEACOCK.

Dudley, Iowa, Feb. 28, 1890.

How a Boy Cures Bee-Stings.

On page 124, I read a letter telling how to cure bee-stings. I am only a little boy, but I know what it is to be stung by bees. My Pa keeps bees, and I help him to take care of them. I am generally bare-footed in swarming-time, and am quick on foot when they begin to crawl up my pant's-legs, and sting. My cure for stings is lemons. Take a fresh lemon, pare, and press the juice on the sting, and it will stop the pain, and keep the swelling down. Or take flour and honey, and make a paste, and bind it on the sting.

I do not take the BEE JOURNAL, but my Pa does, so I have the pleasure of reading it, and I like it very much. Pa's bees are wintering nicely. We have had a pleasant winter so far, with very little snow. I will be old enough to vote in eleven more years, then I will try to keep bees and write for the BEE JOURNAL.

WORTHY E. STONER.
Atlantic, Iowa, March 4, 1890.

Hive-Entrances and Ventilation.

I would like to ask the readers of the BEE JOURNAL, how they close the main entrance to hives in moving them from one place to another, in and out of the cellar; and close them in the spring and fall when the sun shines, and yet the air and ground is so cold that if the bees leave the hive, they will chill and die before reaching the hive again, this being one cause of spring dwindle. In short, we often wish to close the hive, and yet want ventilation from the main entrance.

Berlin, Wis.

A. N. DEGROFF.

The Weather and Bee-Keeping.

The weather has been very warm here, but it has "caught cold," and has been very cold for the last twelve days, being at zero and 15 degrees below. The wind has been in the northwest for some time. Today it is a little warmer, and the wind is in the south. On Feb. 18 I put 4 colonies out of the cellar, and let them have a good flight. I have made a pair of comb foundation molds, and they work splendidly. They are 11x11 inches. I can make foundation enough in one day, to put into 3,000 sections, and the foundation is very nice.

C. A. GOODELL.

Gathering Honey in Florida.

Our bees are gathering honey yet from the willow, and also from the huckleberry. Orange trees are budding out very fast, with a few blooms open, but the harvest will not commence before March 1. Prospects were never better than at this time, for a fine honey season here. The saw palmetto is budding out very prolifically, and will be, from present indications, earlier than usual. There are thousands of acres all along the river, back of the swamp. We are satisfied that there are no better places than along the river here for honey. We will extract, the coming week, to get all the combs clean of mixed honey, so as to get the orange honey in all its purity. The weather is extremely fine and pleasant.

JOHN CRAYCRAFT.

St. Francis, Fla., Feb. 15, 1890.

An Experience with Bees.

I had one colony of bees from the fall of 1888, which wintered all right, and I bought 3 colonies of hybrids in the spring of 1889, for \$9.00. I took about 80 pounds of comb honey, and have 6 colonies in winter quarters. One swarm left me, and another good colony was destroyed by the hogs entering the bee-yard. My good wife died last year, leaving me, and one daughter 6 years old. I am 36 years old, and feel lonesome.

FRED VOLLMANN.

Monroe, Wis., Feb. 26, 1890.

Carniolan Bees and Robbing.

Mr. N. W. Afflerbaugh, on page 124, reports that he had a colony of Carniolan bees last season that were very prolific, very good workers, and filled the surplus boxes rapidly, but which made a general raid on his Italian colonies as soon as a honey-dearth came on, "passing in and out of every hive that he had on the place.... In the morning they would be up before the Italians," etc. Surely, a splendid testimonial for Carniolans, and yet, by a strange process of reasoning, Mr. Afflerbaugh decides to destroy the stronger race, and save the weaker. It is a pity, for the weak is very commendable, but I hope that Mr. A. will not always carry out his idea to *destroy* the stronger. When Mr. A.'s neighbor gets a few Carniolan queens, his colo-

nies will find profitable employment over at Mr. Afflerbaugh's, in carrying off the stores which the poor Italians had worked so hard to gather from the flowers which Carniolans had first visited.

But now, seriously, are Carniolans given to robbing the weaker races? No, sir! I need not attempt to explain what causes led to the robbery in the above instance, but from my experience with from 50 to 100 colonies of Carniolans for the past five years, I am sure that they are less given to robbing than any other race. For ten years previous my apiary consisted of the same number of Italian colonies, and I am very positive that I then had more trouble with robbing than since. I believe that I was the first to make the claim that "Carniolans were most exempt from robbing of any known race," and now that claim is made good, by a very extended experience. Let us have more reports of this new, conquering race.

Oxford, Pa. S. W. MORRISON, M. D.

The Last Season's Results.

I commenced the spring of 1889 with 28 colonies, increased them to 48, by natural swarming, and took off 2,800 pounds of comb honey in one-pound sections, and 700 pounds of extracted honey. I sold most of the comb honey at 10 cents, and the extracted honey at 8 cents per pound. This made an average of 125 pounds to the colony, and when sold it brought \$12.00, making, in even numbers, \$336 for the year 1889. Bees were put into the cellar in good condition. CLARK PEMBERTON.

La Moille, Iowa, Feb. 28, 1890.

Cold Weather—Robbing.

The cold wave has struck this village, and the ground is covered with snow, while the wind is coming from the northwest freezing cold. The probabilities are that all manner of small fruits are killed in the buds. My bees are in good condition for spring work. I have been feeding them on honey and rye flour. The combs are well filled with brood in all stages, from the egg to the full-grown bee emerging from the cells. Last Monday was a warm day, the sun shining brightly, and the bees were out in full force, busy carrying pollen and honey which they gathered from the bloom of the maples; but they have retired again to winter quarters, and utterly refuse to do any out-door work until fair weather. Last spring one of my colonies made an attempt to rob another; I move the hives inhabited by the contending bees, placing each on the stand previously occupied by the other. Each colony immediately settled down to business, and gave me no further trouble.

LODOWICK D. HENDERSON.

Staunton, Ills., Feb. 28, 1890.

Granulated Extracted Honey.

On page 123 of *Gleanings*, Mr. J. A. Buchanan, a very successful seller of extracted honey, and, I presume, an expert in the production of the same, advised this in a recent bee-paper: "adding something to the honey that will retain it in the liquid state." In opposition to this, Mr. G. W. Demaree, on page 117 of the BEE JOURNAL, says that the granulation of honey "should be accepted as a matter *in course*, and the minds of bee-keepers should be directed towards the best methods of handling and popularizing the article."

I make the production of extracted honey a specialty, and am often compelled to buy honey in order to supply the demand. I never attempt to keep my honey from granulating—but I do endeavor to impress

upon the minds of my customers that the granulation of honey is in accordance with nature, and also, inform them how to reduce it to the liquid state without destroying its natural flavor. Of course, some people claim that my honey is not pure—but "all the same," the large majority of my customers prefer the honey to be granulated, and I shall not make any attempt to keep them from enjoying their preference, but shall go straight ahead in the line suggested by Mr. Demaree.

As to the style of package, I find that tin pails with tight covers, *not* "strictly airtight," holding respectively 6½ to 25 pounds of honey, are very desirable sizes. I retail 6½ pounds of extracted honey for \$1.00, and 25 pounds for \$3.00.

Bees are wintering in fine condition, and the prospect for a large crop of clover honey the coming season is very good.

Fancy Prairie, Ills. P. J. ENGLAND.

Gathering Pollen Early.

Yesterday was one of the warmest and finest days for winter ever known in this vicinity—the mercury being 69 degrees in the shade. Bees were out very lively, and bringing in pollen in great quantities, and large pellets at that. This is the earliest known at least for 18 years, since I have kept bees. For bees to bring in pollen in the winter, is something remarkable in this section—60 miles north of New York city. The earliest I had known was on March 6, some years ago. The bees have had many flights this winter, and of course they have wintered well out-of-doors on the summer stands.

M. D. DUBOIS.

Newburgh, N. Y., Feb. 27, 1890.

Easily Poisoned by Bee-Stings.

I am a sort of assistant bee-keeper to my wife, who has been engaged in the business the past two seasons. I would enjoy it tolerably well, were it not for some of the peculiar eccentricities of the bees. They will just "go for" me, while they will treat my wife with considerable deference. There is poison lurking in the "hive and honey-bee" for me. I am very susceptible to poison from sumac and ivy, as well as from bee-stings. Sometimes slight stings, even on my hands, will result in the swelling of my eye-lids, accompanied with a burning, itching sensation about the eyes, as well as other parts of the body, producing very nearly the same effect as poisoning from sumac. I was poisoned this winter, with the same effect as from bee-stings, while cleaning the propolis from sections. Can some of the bee-fraternity tell me whether propolis is a poisonous substance? or was this particular propolis gathered from some poisonous plant?

We are wintering some of our colonies on the summer stands, packed in old boxes with planer shavings, and they are apparently doing well. We put the remaining colonies into the cellar about the middle of November, some of them going in rather light in stores. The cellar is warm and dry, being affected, to some extent, from the heat of a furnace in another part of the cellar. The bees have been very restless all winter, and have come out of the hives in large numbers and died. Some are now in fair condition, while other colonies have consumed their stores, and have to be fed. One colony died, with candy (made according to the recipes in the BEE JOURNAL) over the cluster. I think that it was too hard. Two colonies showed signs of diarrhea, and we took them out for a flight on a warm day, which proved an effectual remedy. We could not keep bees without the AMERICAN BEE JOURNAL.

ASA MORSE.

Stanton, Mich., March 4, 1890.



ALFRED H. NEWMAN,
BUSINESS MANAGER.

Business Notices.

☒ Subscribers who do not receive their papers promptly, should notify us at once.

☒ Money in Potatoes, by Mr. Joseph Greiner. Price, 25 cents, postpaid. For sale at this office.

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☒ Calvert's No. 1 Phenol, mentioned in Cheshire's Pamphlet on pages 16 and 17, as a cure for foul brood, can be procured at this office at 25 cents per ounce, by express.

☒ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to advance that date another year.

☒ Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

☒ Any of the Political Dollar Weekly Newspapers will be clubbed with our JOURNAL at \$1.85 for the two; or with both our HOME JOURNAL and BEE JOURNAL for \$2.50 for all three papers.

☒ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write American Bee Journal on the corner of your envelopes to avoid confusion and delay.

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Toronto Globe (weekly).....	2 00.....
History of National Society.....	1 50.....
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Convention Notices.

☒ The spring meeting of the Northern Illinois Bee-Keepers' Association, will meet at the residence of D. A. Fuller, in Cherry Valley, Ills., on May 19th, 1890.

D. A. FULLER, Sec.

☒ The next regular meeting of the Southwestern Wisconsin Bee-Keepers' Association will be held at Boscombe, Wis., on Thursday, May 1, 1890, at 10 a.m.

BENJ. H. RICE, Sec.

☒ The 12th annual session of the Texas State Bee-Keepers' Association, will be held at Greenville, Hunt Co., Texas, on May 7 and 8, 1890. All interested are invited.

J. N. HUNTER, Sec.

☒ The spring meeting of the Missouri State Bee-Keepers' Association, will be held at Marshall, Saline Co., Mo., on Wednesday and Thursday, April 16 and 17, 1890, in the County Court Room. Reduced rates at the hotel, for bee-keepers, have been secured, and a committee is at work to secure rates on the railroads. A cordial invitation is extended to bee-keepers everywhere, and especially to those of Missouri. A number of essays from prominent bee-men are expected, and an interesting time is anticipated.

J. W. ROUSE, Sec.

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HOSPITAL REMEDIES.

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Some idea of the magnitude of this book may be gained from the fact that it contains over 44 cubic inches of paper, and has about 300,000 square inches of printed surface. This is a cheap, re-print edition without illustrations.

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HONEY AND BEESWAX MARKET.

DENVER, March 8.—1-lb. sections, 13@15c.; Extracted, 7@8c. There is sufficient comb honey to supply the market till the new crop arrives. Beeswax, 20@25c.

J. M. CLARK COM. CO., 1421 Fifteenth St.

DETROIT, March 7.—Comb honey is quoted at 11@13c. Supply not large, but sales slow. Extracted, 7@8c. Beeswax, firm at 24@25c.

M. H. HUNT, Bell Branch, Mich.

KANSAS CITY, March 6.—The demand for honey is improving a little, but it is no better in prices. White 1-lbs., 11@12c.; white 2-lbs.; 10@11c.; fall 1-lbs., 9@10c.; 2-lbs., 8@9c. Extracted, white, 7c.; dark, 5@6c. Beeswax, 22c.

CLEMONS, CLOON & CO.,
Cor. 4th and Walnut Sts.

CHICAGO, Feb. 22.—We quote: White clover in active demand and quick sales, on arrival: 1-lbs., 12@13c.; 2-lbs., 11@12c. Basswood 1-lbs., 11@12c. Buckwheat 1-lbs., 8@9c. Extracted, 6@7@7c. Beeswax—bright, 25@26c.; dark, 23@24c.

S. T. FISH & CO., 189 S. Water St.

NEW YORK, Feb. 26.—Market quiet, especially on comb honey. Prices irregular, ranging from 9@13c. according to quality. Extracted is moving fairly well at prices we give on page 60.

HILDRETH BROS. & SEGELKEN,
28-30 Broadway, near Duane St.

KANSAS CITY, Feb. 26.—Demand is light. Fancy 1-lbs., 13c.; good white, 12c.; dark, 8@10c. Two-lbs., white, 10@11c.; dark, 8c. Extracted, white, 6@7c.; dark, 5c. Beeswax, 22c.

HAMBLIN & BEARSS, 514 Walnut St.

CHICAGO, March 6.—Honey is selling quite well in a small way, at 12@13c. for white 1-lbs., and 10c. for 2-lbs.; dark is slow at 8@10c. Receipts are heavier than usual for this season of the year, but all is called for as fast as it arrives. Extracted is dull at 6@8c. Beeswax, 25c.

R. A. BURNETT, 161 S. Water St.

BOSTON, Feb. 24.—Best 1 lbs., white, 15@16c.; best 2-lbs., 14@15c. Extracted, 8@9c. Sales are slow.

BLAKE & RIPLEY, 57 Chatham St.

CINCINNATI, March 7.—Good demand for extracted honey, especially from manufacturers at 5@8c. Comb honey, 12@15c. for best. Demand fair.

Beeswax is in good demand at 20@25c. for good to choice yellow. C. F. MUTH & SON, Corner Freeman & Central Aves.

The Singer Sewing Machine selected from your Premium List, I received in good order, and I am well satisfied.—G. Ruff, Burlington, Iowa.

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